In the present case, the order of reaction shows critical evidence, because completely different products are obtained if the crosslinking of the polyalkylenepolyamines, polyamidoamines grafted with ethylene imines, polyetheramines or mixtures thereof is carried out before the reaction with the monoethylenically unsaturated carboxylic acid or after the reaction with a monoethylenically unsaturated acid. In the first case, which is as the presently-claimed invention, wherein the crosslinking is carried out first, a crosslinking of the main chain of the polyalkylenepolyamines, polyamidoamines grafted with ethyleneimine or polyetheramines occurs and no crosslinking of the side chains which are introduced by reaction with the monoethylenically unsaturated carboxylic acids occurs. However, in the second case, if the reaction with the monoethylenically unsaturated carboxylic acids is carried out first and thereafter a crosslinking occurs, the crosslinking occurs also between the side chains of the compounds comprising side chains derived from the monoethylenically unsaturated carboxylic acids.

As previously presented, the following scheme shows the partial structure of the reaction product obtained by reacting crosslinked polyethyleneimine with an α,β-unsaturated carboxylic acid by a Michael-addition: